



ABSTRACT / ZUSAMMENFASSUNG / ABREGE

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The minimization or elimination of swelling in lithium cells containing CF_x as part of the cathode electrode and discharged under high rate applications is described. When CF_x materials are synthesized from fibrous carbonaceous materials, in comparison to petroleum coke, cell swelling is greatly reduced, and in some cases eliminated. The fibrous carbonaceous material having sufficient spacing between graphite layers to restrict expansion due to solvent co-intercalation. Preferred precursors are carbon fibers and MCMB.